DEPARTMENT OF THE ARMY HEADQUARTERS, UNITED STATES ARMY MATERIEL COMMAND 5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333-0001

AMC REGULATION

4 August 1997

No. 70-8 CHANGE 1

Research, Development, and Acquisition

AMC VALUE ENGINEERING PROGRAM

AMC-R 70-8, 31 December 1996, is changed as follows:

- 1. Pen and ink changes:
- a. Page 1, Series Title. Change "Military Publications" to "Research, Development, and Acquisition."
- b. **Page 1**, Supplementation. In the last sentence, change "Industrial Engineering Activity (AMXIB) "to "Army Materiel Systems Analysis Agency (AMXSY)." Also, change "IEA" to "AMSAA" wherever it is mentioned throughout the regulation.

This change is necessary as the Industrial Engineering Activity (IEA) will become part of the Army Materiel Systems Analysis Agency, effective 1 October 1997.

- c. Page 2-2, first line. Change the title "Value Engineering Program Manager (VEPM)" to "Value Engineering Manager (VEM)." Also, change "VEPM" to "VEM" wherever it appears throughout the regulation.
- 2. File this change in front of the regulation.

C1, AMC-R 70-8

The proponent of this regulation is the United States Army Materiel Command Industrial Engineering Activity (IEA). Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Director, USA IEA, ATTN: AMXIB, Rock Island, IL 61299-7260

FOR THE COMMANDER:

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DEPARTMENT OF THE ARMY HEADQUARTERS, UNITED STATES ARMY MATERIEL COMMAND 5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333-0001

AMC REGULATION No. 70-8

19 May 1987

Research, Development, and Acquisition

AMC VALUE ENGINEERING PROGRAM

Local supplementation of this regulation is prohibited unless prior approval is obtained from the proponent.

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- 1. <u>Purpose</u>. This regulation prescribes policy, responsibilities, and general procedures for the planning, management, review, and assessment of activities to conduct the Army Materiel Command (AMC) Value Engineering Program (VEP).
- 2. <u>References</u>. Required and related publications are listed in appendix A.
- 3. Explanation of abbreviations and terms. Value Engineering (VE) An organized effort directed at analyzing the function of Army systems, operations, equipment, facilities, procedures, methods, and supplies to achieve the required function at the lowest total life-cycle cost consistent with requirements for performance, reliability, quality, maintainability, and safety. VE is a methodology used to achieve the lowest total life-cycle cost while maintaining essential functionality and reliability.

^{*}This regulation supersedes DARCOM-R 70-8, 23 February 1978.

The explanation of abbreviations and other VE terms used in this regulation is contained in the glossary. Terms such as value analysis (VA), value control, value improvement, and value management are synonymous with VE, in that they use the same methodology, the VE job plan.

- 4. Objectives. The objectives of the AMC VEP are --
- a. To reduce the overall cost of Army operations, systems, procedures, supplies, and services while meeting necessary performance requirements. This is accomplished by--
- (1) Identifying, eliminating, and/or modifying unessential or overly complex characteristics and functions of an item.
- (2) Identifying ways to achieve essential characteristics and functions at less cost, thereby extending financial, manpower, and materiel resources.
- (3) Fostering timely adoption of beneficial technological advances.
- (4) Simplifying Army materiel/systems with consequent measurable improvements in operational availability and logistics support.
 - (5) Instilling cost and value awareness in AMC personnel.
- (6) Providing adequate awards and recognition for individuals, groups, and organizations which have generated savings utilizing the VE methodology, including appropriate consideration in accordance with the Incentive Awards System.
- (7) Reducing future Operation and Support (0&S) cost by identification and elimination of cost drivers early in the development cycle.
 - (8) Providing VE training to AMC personnel.
- b. To obtain total value improvement in research, development, testing, evaluation, production, procurement, quality assurance, administration, construction, supply, transportation, maintenance, overhaul, storage, and disposition of Army materiel, and related or associated software and procedures.
- c. To reflect approved VE changes in the technical data for procurement of items/systems or like items/systems. Such VE changes will be screened to determine whether type reclassification is required under the provisions of AR 70-61.

- d. To maximize benefits through the timely processing of VEPs and VECPs in accordance with current policy and procedures.
- (1) VEPs and VECPs affecting configuration identification documentation will be expedited in accordance with AR 70-37, Configuration Management.
- (2) VEPs and VECPs not affecting configuration identification documentation will be expedited in accordance with command/agency requirements.

In either instance, the originator of a fully packaged proposal will be notified within 45 days of the proposal receipt date that the proposal was received. Notice of approval or disapproval will be provided within an average of 60 days of the proposal receipt date. If the notice of approval or disapproval cannot be provided within 45 days, then the submitter should be notified of expected decision date and reasons for the delay. (For further clarification, see para 5g (page 6).)

- (3) When a VEP or VECP affects a federal or military specification and the action to change the specification cannot otherwise be effected, AMC commands and activities will notify the specification preparing activity by use of DD Form 1426 (Standardization Document Improvement Proposal), as outlined in DOD Manual 4120.3-M.
- 5. <u>Policy</u>. a. VE will be given full recognition, primary emphasis and support by commanders, technical directors, program and project managers, and chiefs of operating agencies having responsibility for research, development, test, and evaluation (RDTE), procurement and production, operations and services, maintenance, supply, transportation, construction, storage, and final disposition of the AMC materiel and facilities. VE Will be used to enhance military worth and/or eliminate unnecessary costs in all phases of the life cycle of Army materiel and to make better use of all resources.
- b. A centralized VE capability will be established for VE management in all AMC major subordinate commands (MSCs), AMC Reporting Program Managers (PMs), and other direct reporting activities. Its primary responsibility is to assist functional and program/project/product management organizations in generating VEPs and encouraging contractors to submit VECPs, to-monitor progress, and to organize and direct successful VE efforts. The management of the VEP will be assigned to organizations at a staff level where it will be independent of specialized interests and can provide maximum results.

- (1) Value Engineering Program Managers (VEPMs) at MSCs, except Test and Evaluation Command (TECOM), will be full-time, high grade personnel at staff level.
- (2) VEPMs at TECOM, PMs, and other direct reporting activities will be identified/designated.
- c. Measurable VE goals will be allocated to all AMC VE reporting organizations. Technical decision points will be established to give the fair and prompt technical evaluation and processing of in-house VEPs and contractor-originated VECPs.
- d. All VE savings and budget cost avoidances will be reported, validated, and verified as described below:
- (1) All savings accruing to other than the reporting MSC/PM/activity must identify the benefiting organization/system. This will be done prior to inclusion in the Budget and Program Resources Review (BPRR) to ensure reapplication is identified. Savings will be identified to the office responsible for the Productivity Savings Impact Report, along with investment and reprogramming data.
- (a) For VEPs -- net dollar savings and cost avoidance estimates from approved and implemented VEPs must have written validation by an audit/cost analysis office other than the VE organization.
- (b) For VECPs -- a contract modification for financial settlement is considered an adequate validation except for a no-cost settlement, where validation should be made per 5d(1)(a).
- (2) The validation will take place at the MSC, PM, or activity where the savings are initially reported.
- (3) Records verifying the savings will be maintained in the originating organization's VEPM Office.
- (4) Definitions and requirements in AMC Program Budget Guidance (PBG) and BPRR are applicable to identification, documentation, and reporting of VE savings. Hard dollar savings are defined as "on-hand funding no longer required for the originally intended purpose." This hard dollars savings is then "excess" funding that may be reprogrammed to finance unfunded requirements during the current fiscal year. Cost avoidances are defined as "a reduction in identified future requirements for which funding has been requested and programmed in the budget year or future budget year."

- (5) VEPM, VE staff offices, appropriation program director, functional manager, and productivity coordinator must work together to resolve documented savings reapplication. The impact on resource requirements in BPRR and PBG must be assessed and determined.
- e. All personnel performing in VE or involved in the processing of VE actions (to include, but not limited to, procurement personnel, data managers, configuration managers and their supervisors) will receive formal training in VE practices and procedures.
 - f. VE provisions will be included in contracts as follows:
- (1) A VE clause will be included in all contracts for supplies, services, facilities, and material, as provided in Part 48 of the Federal Acquisition Regulation (FAR) and the Department of Defense Federal Acquisition Regulation Supplement (DFARS).
- (2) A VE Program Requirement Clause (VEPRC) (FAR 52.248-1, Alternative i or ii) will be incorporated in all initial production contracts (first and second production buys) for major systems with the following exceptions:
- (a) Contracts where, in the judgment of the contracting officer, the prime contractor has demonstrated an effective VE program during either earlier program phases or during other recent comparable production contracts. (The past VE savings to the Government should be used as a guide for measuring effectiveness but are not go-no-go points to replace the management decision process in determining the effectiveness of a contractor's past VE efforts.)
- $\mbox{\ \ }$ (b) Contracts which are awarded on the basis of production competition.
- (3) A VE Program Requirement Clause (VEPRC) (FAK 52.248-1, Alternative ii) will be incorporated in all other production contracts over \$10 million unless the contracting officer makes a determination that it is unreasonable to expect sufficient savings to justify expenditures under the VEPRC. Lack of past production VE activity by the contractor under the incentive clause should not be used as the basis for a determination not to include the VEPRC.
 - g. VECPs will be processed as follows:
- (1) The contractor should be notified within 45 days after receipt of the VECP that the Government has received his/her VECP for evaluation. Then the VECP does not contain sufficient documentation to allow the Government to be able to evaluate the VECP, the contractor will be so notified along with information on what data is required from him/her before his/her VECP can be evaluated.

- (2) Approval or disapproval notification of a fully packaged VECP is provided within an average of 60 days to the contractor.
- (3) Financial settlement of VECPs is accomplished within an average of 90 days of technical approval notification to the contractor.
- (4) Individual exceptions to the above are obtained from the AMC VEPM.
- (5) Approved VECPs are incorporated into all appropriate contracts in a timely manner to maximize the Government share of any resultant cost reductions. See Section 48 of FAR.
- (6) Disapproved VECPs are justified and documented based upon sound technical and/or economic reasons.
- (7) Each VECP must be processed and decisions made based upon the individual merits and circumstances of the VECP. The guidance contained in appendix C is provided in order to establish uniformity of application between separate commodity commands in their dealings with contractors. This guidance on VECP issues is not intended to replace individual good judgment.
- h. A plan to conduct Value Studies on a system-wide basis for specifications, standards, performance and testing/inspection requirements, and documentation/data on each RDTE project will be established in coordination with the Combat Developer (COMDEV). Funding for the VE/VA effort will be included in all RDTE project funding documentation. This plan will cover all phases of the Materiel Acquisition Process IAW AR 70-1. VE/VA principles and methodology will be used throughout the life cycle to promote the fielding of equipment with optimum life cycle cost effectiveness.
- i. VE activities should be conducted during each development phase as follows:
- (1) Conceptual/Tech Base. The manufacturing/production strategy will include a discussion of planned VE efforts and description of how VE methodology will be employed.
- (2) Validation/Proof of Principle. VE methodology has been established and VE activities included in production readiness plan.
- (3) Development/Production Prove-Out. Plans for additional cost improvements during production have been formulated. VEP Master Plan formulated. Initiate formal VE program.

- (4) Production and Deployment.
- (a) Address engineering support for VE as part of overall production effort.
 - (b) Continue formal VE program.
- j. Materiel and items of equipment in logistics support status will undergo VE review on a selective basis, based on a potential for high rate of return. When redesign of an end item or component is initiated, VE techniques will be used in preparing the redesign. VE considerations will be integrated with product improvement proposals submitted to Headquarters (HQ) AMC for approval (AR 70-15).
- k. Approved VE changes will be included in ongoing contracts whenever beneficial and in the technical data package of the item/ system and used with future contracts and other materiel to which such changes may apply.
- 6. <u>Responsibilities</u>. a. The AMC Deputy Chief of Staff (DCS) for Production will--
 - (1) Provide HQ AMC staff supervision of the AMC VEP.
- (2) Designate a full-time VEPM to serve in the staff capacity of manager and point of contact on VE matters for AMC with higher headquarters, Government agencies, industrial associations, universities, professional societies, industry, and others. The AMC VEPM is responsible for overall VE program policy and procedures and will ensure compliance with policy and procedures.
- (3) Develop and provide necessary policy and direction for the AMC VE Program to include establishing and funding VE studies/tasks.
- $\mbox{(4)}$ Establish annual goals and objectives for the AMC MSCs, PMs, and other appropriate activities reporting to HQ AMC.
- (5) Review AMC command-wide VE resources and take action to assure that adequate resources are available to support an effective VEP.
- (6) Promote VE as a way of thinking, keep AMC personnel aware of VE opportunities and initiate motivational programs that will stimulate in-house VE activity throughout AMC.
- (7) Support projects to develop new and improved VE techniques, publicize results, and encourage rewards for above average VE performance.

- b. The Deputy Chiefs of Staff (DCS), Headquarters AMC, are responsible for providing assistance in the execution of the AMC VE Program in their respective areas of mission responsibility, and for coordination with the AMC VEPM on those actions taken within their mission areas which relate to the AMC VE Program. Specifically, the DCS for Development, Engineering, and Acquisition will assure that VE is integrated into the mainstream of the development effort, used to assist in meeting Design to Cost (DTC) targets, used to support acquisition streamlining, and maintained through all phases of development. The DCS for Personnel will furnish guidance and assist the VEPM in providing support for an effective and continuing VE training program within HQ AMC and AMC subordinate elements. The DCS for Procurement will assure AMC contracting personnel provide full support to the VE Program and are properly trained in the contractual aspects of VE (CAVE), appropriate VE coverage in contracts, in accordance with the Federal Acquisition Regulation (FAR) and Army Procurement Procedures (APP) on contracts covering all phases of the materiel life cycle. The policy and procedures for the monitoring, tracking and implementing of financial settlements, contract modifications, and other contract instruments will be established and coordinated within HQ AMC and the AMC subordinate elements by the DCS for Procurement. The DCS for Information Management will furnish required automated data processing (ADP) support. for Resource Management will provide guidance and procedures for implementation of Budget Guidance for VE, as specified in chapter 3, AR 5-4. The Deputy Chief of Staff, Engineer will ensure the use of VE principles during the design, construction, operation, and maintenance of the supporting facilities.
- c. The USA Industrial Base Engineering Activity (IBEA), as a functional element of DCS for Production, is responsible for monitoring implementation and accomplishments, identifying problem areas, instituting corrective actions, and recommending overall program improvements for the AMC VE Program. The Director of IBEA will--
- (1) Publish and maintain the AMC VE Program Guide, and other appropriate VE-related documents. VE Program roles are described in this guide. These roles reflect a breakdown of responsibilities for actions required to achieve a successful VE effort.
- (2) Manage the system development and change control for the Value Engineering Automated Reporting System (VEARS), a management tool for AMC VEPM.
- (3) Review command-wide VE resources in conjunction with DCS for Production to assure that adequate resources are available to support an effective VEP.

- (4) Monitor the effectiveness and utilization of VE training within AMC. Recommend training improvements in terms of VE course upgrades and actual AMC people receiving training.
- (5) Evaluate the progress toward fulfilling AMC annual goals, and the overall effectiveness of the AMC VEP.
- (6) Conduct an annual end-of-year review meeting and other quarterly review meetings with the VEPMs within AMC utilizing the AMC video conference network facilities, when appropriate.
- (7) Conduct an annual meeting Mid-Year Review of AMC VE points of contact in conjunction with the annual meeting of the Society of American Value Engineers.
 - (8) Prepare and maintain this regulation.
- (9) Prepare, maintain, and publish a roster for points of contact on VE within AMC.
- (10) Prepare and maintain an annual (by fiscal year) AMC VE Program Master Plan and publish instructions by which the reporting organizations are to prepare corresponding Master Plans. This plan will describe anticipated VE program activity for the coming fiscal year.
- (11) Perform as needed on-site staff visits to each AMC VE reporting organization.
- (12) Prepare and publish a VE program execution report which is a compilation of data provided to VEARS under RCS: AMCPD-306.
- (13) Establish and utilize a systematic approach using the Logistic Systems Support Activity (LSSA) quarterly report for monitoring the progress of the MSCs/PMs and contractors toward their goals.
- (14) Establish criteria consistent with AMC VE goals for determining which contractors should receive DOD, Army, and AMC awards. Screen the MSC award nominees and staff the list of nominees within HQ AMC for approval. Arrange for the preparation of the AMC awards and distribute the AMC awards for presentation.
- (15) Establish criteria consistent with AMC VE goals for determining which AMC organizations or individuals should be nominated for DOD, Army, and AMC awards. Screen the award nominees and staff the list of nominees within HQ AMC for approval. Arrange for the preparation of the awards and arrange for the distribution of awards for presentation as appropriate for the DOD, Army, or AMC award.

- (16) Identify candidates, gather and collate data, and prepare before and after VE accomplishments charts for use in AMC exhibits and briefings.
- (17) Select worthy VE projects and other material to be exhibited. Arrange for the preparation and display of VE exhibits at appropriate functions.
- d. The commander of each MSC, each separate reporting activity (SRA), and each PM reporting directly to HQ AMC will--
- (1) Establish and maintain an active and aggressive in-house and contractual VE effort, and assign such resources to the program as are necessary to achieve assigned goals and objectives. Further, he or she will assure that VE is budgeted for by all operating elements during program planning, in accordance with established programming structure and procedures. VE will be funded as a separate staff operation and as a separate line item in individual programs and projects during planning and execution. The VE funding profile will be available for all in-process reviews (IPRs), Army Systems Acquisition Review Councils (ASARCs), and Defense Systems Acquisition Review Councils (DSARCs). VE budget guidance and procedures are described in appendix B.
- (2) Designate a qualified individual to be the VEPM (VEPM positions at MSCs, will be full-time high grade personnel assignments. VEPM positions at TECOM, PMs, and direct reporting activities will be designated and identified in writing). The delegated VEPM will have authority and sufficient organizational placement to conduct a VE Program. The VEPM, in the case of MSCs except TECOM, will be supported by a separately identifiable organizational element. The name, rank or grade, organizational location, office symbol, and telephone number of the VEPM will be furnished to the Director, USA IBEA, immediately upon receipt of this regulation and/or upon redesignation of the VEPM.
- (3) Prepare and maintain an annual (by fiscal year) VE Program Master Plan in accordance with the instructions published annually by IBEA, describing the anticipated VE program activity for the coming fiscal year, both in-house and with contractors. This plan will be the basis for VE activities to be pursued during the year. A copy of the activity approved master plan will be submitted to the Director, USA IBEA, prior to 30 June of each year. Changes to the master plan will be forwarded to the Director, USA IBEA, as required.
- (4) Assure that in-house VE studies are identified and performed on systems, equipment, facilities, procedures, maintenance concepts, Military Construction, Army (MCA) projects, and supplies which have significant potential for reducing cost and increasing military worth.

- (5) Provide for inclusion of VE evaluation as agenda items for decision reviews (AK 70-1).
- (6) Ensure that VE is used to help establish DTC targets and in tracking and achieving the DTC from research and development (R&D) through initial production of the systems/items/equipment (AR 70-64).
- (7) Identify specification parameters which drive costs the most and assure that resources are made available to perform VE analysis on those parameters.
- (8) Monitor contractor VE program requirement clause performance to ensure contract compliance and determine progress of resultant net savings.
- (9) Encourage contractors to submit VECPs through correspondence and appropriate liaison visits.
- (10) Establish necessary controls and monitoring to assure that VE objectives are met and VECPs are processed in a timely and equitable manner in accordance with the FAR and AMC policy.
- (11) Ensure that proponent design and engineering support elements participate in the development and evaluation of in-house VE proposals.
- (12) Sub-allocate VE savings goals down to operating levels (project and line management organizations) and contractors. Adjust VE savings goals based on actual funds financed and received. Adjust goals based on redistribution of funds received or transferred between other MSCs/PMs or other Government activities.
- (13) Conduct monthly review and analysis of all VE activities in order to place continued emphasis and priority on in-house VEP5 and contractor-originated VECPs which have the highest cost savings potential. This will include as a minimum compiling--
 - (a) In-house VE results/VE goal accomplishment.
- (b) Results from use of VE contract provisions/VE goal accomplishment.
- (c) Time taken to process VE actions for evaluation and Government approval decision; and for implementation and financial settlement modification.

- (14) Ensure that managers, engineers, technicians, auditors, logisticians, contracting officers and specialists understand Army VE objectives, precepts, policies, goals, methods and contract incentive, and program requirements clause provisions. VE courses listed in the Defense Management Education and Training Catalog 5010.16-C or VE courses approved by the Society of American Value Engineers and available commercially will be utilized as appropriate for all personnel engaged in VE activities. VE personnel should be trained in the Principles and Application of Value Engineering (PAVE) and procurement personnel should be trained in CAVE.
- (15) Ensure that personnel who are necessary to the successful accomplishment of the VE Program (specifically contracting officers and specialists, configuration managers, configuration management officers and their supervisors) provide full support to the VEP.
- (16) Ensure that contractors are provided an incentive to achieve cost reductions by including the appropriate VE clause(s) in contracts in accordance with this regulation (para 5f), the DFARs, and the FAR. Decisions to exclude VE clauses shall be justified in writing by the contracting officer and a copy furnished to the VEPM or excluded by the FAR.
- (17) Ensure that disapprovals of VECPs are fully justified and based upon technical or economic reasons.
- (18) Ensure that contractors comply with the terms and conditions of their contract while VECPs are being evaluated by the Government unless it is clearly determined that it would be in the best interest of the Government to delay performance under the contract in order to maximize the VE savings.
- (19) Ensure that VE savings and the reprogramming of savings to unfinanced requirements are fully documented and reflected in all budgetary submittals.
- (20) Ensure full compliance with DODD 4245.8, AR 5-4, and this regulation and the provisions regarding VE of the Federal Acquisition Regulation and the Defense Acquisition Regulation.
- (21) Sponsor projects to develop new and improved VE efforts and communicate such efforts to HQ AMC as idea interchange. Any such projects qualifying under the definition of research or technical development will be appropriately identified in the Army RDTE programs as prescribed in AR 70-45.

- (22) Publicize benefits achieved through VE and reward significant accomplishments by any AMC personnel generating VE savings.
- (23) Prepare data and reports in accordance with the VEARS User's Manual by the 5th working day following the close of each quarter for each new VEP and VECP. The data will be updated on a quarterly basis.
- (24) Ensure that all approved VEPs and VECPs are entered into the Value Engineering Data Information Storage and Retrieval System (VEDISARS) data base.
- e. The Chief, AMC Logistic Systems Support Activity (LSSA), is responsible for performing system design and automated reporting system functions for the AMC VE Program in support of HQ AMC and will--
- (1) Design and maintain a system to provide timely and valid program management to HQ AMC, IBEA, and AMC reporting activities.
- (2) Perform automated reporting system functions to include validation of data, preparation of quarterly report to HQ AMC, IBEA, and feedback to AMC VE reporting activities.
- (3) Assure validity of data and improvement of the operation of the system through recurring liaison with the HQ AMC VE Program Manager, IBEA, the AMC VE reporting activities, and participation in AMC VE meetings.
 - f. Program/Project/Product Managers and Materiel Developers will--
- (1) Prepare and submit to the appropriate VEPM a VE master plan IAW this regulation.
- (2) Provide an organizational focal point for the conduct of VE activities.
- (3) Plan, program, budget, and conduct VE activities IAW the manufacturing/production strategy, the production readiness plan, VE master plan, DODD 4245.8, AR 5-4, and this regulation.
- (4) Have the necessary contractual and support agreements prepared and implemented for contractor and Government agency support of VE activities.
- (5) Assure that contractors/subcontractors develop and maintain effective VE programs and plans. Monitor and evaluate contractor VE accomplishment versus plan.

- (6) Monitor and coordinate the VE efforts of other MSCs, PMs, activities and development laboratories/centers or arsenals who are developing or acquiring system components in order to assure total system effectiveness.
- (7) Fund VE activities as a separate line item in individual programs and projects during planning and execution. The VE funding profile will be available for all IPRs, ASARC, and DSARCs.
- (8) Include the appropriate VE clause program requirements or incentive in all contracts over dollar thresholds.
- (9) Include VE actions/studies as an agenda item on in-process and production readiness reviews.
- g. U.S. Army Management Engineering Training Activity and Army Logistics Management Center will--
 - (1) Provide training in VE concepts.
- (2) Maintain lists of AMC employees who are trained in VE methods and VE implementation and qualified to conduct VE training.

The proponent of this regulation is the U.S. Army Industrial Base Engineering Activity. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Director, USAIBEA, ATTN: AMXIB-PS, Rock Island, IL 61299-7260.

FOR THE COMMANDER:

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Appendix A

REFERENCES

SECTION I

Required Publications

AMC PAM 706-	Engineering Design Handbook - Value Engineering
104	
AR 5-4	Department of the Army Productivity Improvement Program
AR 11-28	Economic Analysis and Program Evaluation for Resource
	Management
AR 37-100	Account/Code Structure
AR 37-100-FY	The Army Management Structure
AR 70-1	Systems Acquisition Policy and Procedure
AR 70-15	Product Improvement of Materiel
AR 70-37	Configuration Management
AX 70-45	Scientific and Technical Information Program
AR 70-61	Type Classification of Army Materiel
AR 70-64	Design to Cost
AR 310-25	Dictionary of United States Army Terms
AR 700-90	Army Industrial Preparedness Program
DA PAM 5-4-5	Value Engineering Handbook
DFARS	Defense Acquisition Regulation Supplement
DOD 4120.3-M	Defense Standardization Manual: Standardization
	Policies, Procedures, and Instructions
DOD 5010.16-C	Defense Management Education and Training Catalog
DODD 4245.8	DOD Value Engineering Program
DODD 5000.1	Major System Acquisitions
DODD 5010.31	DOD Productivity Program
DODI 7110.2	Budget Guidance for Value Engineering
FAR	Federal Acquisition Regulation
MIL-STD-1771	Value Engineering Program Requirements

SECTION II

Related Publications

AR 18-1	Army Automation Management
AR 20-1	Inspector General Activities and Procedures
AR 40-70	Buildings and Structures
AR 105-22	Telecommunications Requirements Planning, Developing
	and Processing
AR 108-2	Army Training and Audiovisual Support

Related Publications (Cont'd)

AR 310-1	Publications, Blank Forms, and Printing Management	
AR 310-49	The Army Authorization Documents System	
AR 340-4	Files Equipment	
AR 340-8	Army Word Processing Program	
AR 340-20	Office Copiers	
AR 340-22	Army Micrographics Program	
AR 415-15	Military Construction, Army (MCA) Program Development	
AR 415-28	Department of the Army Facility Classes and	
	Construction Categories (Category Codes)	
AR 420-10	Facilities Engineering: General Provisions,	
	Organization, Functions, and Personnel	
AR 420-17	Real Property and Resource Management	
AR 672-20	Incentive Awards	
AR 690-400	Employee Performance and Utilization	
AR 700-139	Army Warranty Program Concepts and Policies	
AR 702-3	Reliability, Availability, Maintainability	
AR 750-43	Test, Measurement and Diagnostic Equipment	
CIR 310-83-1	Base Level Commercial Equipment	
CTA 50-909	App Common Table of Allowances Field Garrison Furnishings	
gpp 050 10	and Equipment	
CPR 950-18	Army Civilian Career Program for Engineering Sciences	
CPR 950-26	Army Civilian Career Program for Manpower and Force	
D3 D3M E 0	Management.	
DA PAM 5-2 DA PAM 5-3	Improvement Tools for Soldier Managers.	
DA PAM 5-3	Management Improvement Techniques for First Line Supervisors	
DA PAM 5-3-1	MAP-TDA Instructor's Guide	
DA PAM 5-3-1 DA PAM 5-4-1	Management Survey Handbook	
DA PAM 5-4-1 DA PAM 5-4-2	Work Simplification Handbook for Analysts	
DA PAM 5-4-4	DIMES Defense Integrated Management Engineering System	
DA FAM J T T	Program Review Handbook	
DA PAM 5-4-6	Work Scheduling Handbook	
DARCOM-P 11-3	VE Program Management Guidelines	
DOD 4245.7-M	Transition from Development to Production	
DODD 4245.3	Design to Cost	
DODD 5000.43	Acquisition Streamlining	
DODI 5010.15.	Standardization of Work Measurement: General Guidance	
1-M		
DODI 5010.34	Productivity Enhancement, Measurement, and Evaluation	
	Operating Guidelines and Reporting Instructions	
DODI 5010.36	Productivity Enhancing Capital Investment	
AMC R 11-2	Installation and Activity Identification-Codes	
FPM 410-A-2e(2)Federal Personnel Manual, US Civil Service Commission	

OMB CIK A-76 Performance of Commercial Activities

SB 700-20 Army Adopted/Other Items Selected for Authorization/

List of Reportable Items

AMC Guide

AMC Value Engineering Program Guide Federal Procurement Data System, Contractor D-U-N-S

Identification File

Appendix B

VALUE ENGINEERING BUDGET GUIDANCE AND PROCEDURES

- 1. Budget guidance and procedures. a. General. While the acceptance and implementation of VEPs and VECPs produce lower overall costs to the Government, the time period or fiscal account in which savings accrue may not coincide with the time period or fiscal account in which the cost of DOD investment or share payments to a contractor occur. In recognition of the overall cost benefits to be derived, it is the policy of AMC to include in all budget estimates and operating budgets such amounts as are necessary to pay for VEPs and VECPs, testing and other costs, arising from VE.
- b. Funding. Funds for VE will be provided by the item manager of the parent end item. Except as specified below, the appropriation financing the prime benefiting program will pay the costs and share in the benefits arising from VE actions.
- (1) VE (internal or contractor) performed during design and development will be funded from the RDTE appropriations.
- (2) VE performed pursuant to either a program requirements clause or an incentive clause on major end items in production, or in the operational inventory, such as weapons, military equipment and components, as well as minor items, will be funded as follows:
- (a) Engineering in support of items in Full Scale Production or Post Production Engineering products will be charged with the cost of conducting VE investigations and preparing and accomplishing resultant VEPs or VECPs.
- (b) The funding of VEP and VECP industrial preparedness projects is described in AK 700-90.
- (3) VE performed by a contractor pursuant to a VE program requirements clause will be financed as a separate line in the contract from the same appropriation cited in the contract.
- 2. Budget procedures. a. Sharing on VE incentive clauses.

(1) <u>Instant contract</u>.

(a) <u>Description of method</u>. The contractor shares in a reduction in the cost of performing the instant contract as a result of a VE change proposed by the contractor and accepted by the Government. The sharing determined from the instant contract is calculated on the quantity of the items procured under the contract that incorporates the

accepted change. The contractor is compensated under the contract that incorporates the accepted change. The contractor is compensated by reducing the contract value by the amount of gross savings and then increasing the reduced amount by the contractor's allowable development and implementation cost and the contractor's share of the savings.

(b) <u>Financing</u>. If the instant contract includes more than one fund citation, the savings will be prorated in the same proportion as the quantity procured for the different appropriations. If the instant contract includes a fund citation, which results from a consolidated order from two or more customers, the savings will be passed on in the same proportion as the quantities procured which incorporate the accepted change.

(2) Lump sum payments on future acquisition savings.

- (a) Description of method. In addition to sharing the savings for items procured under the instant contract as 2a(1)(a) above, the contractor may also be paid a share of the anticipated sharing period savings resulting from the authorized use of an accepted VECP, on quantities of the same item which are procured subsequently by the same procuring a activity, or as otherwise indicated. The contractor's share per unit is established by the instant contract. The contractor may be compensated by means of a lump sum, one-time payment under the instant contract, if acceptable to both the contractor and the Government.
- (b) <u>Financing</u>. The acceptance of a VECP is subject to prior determination that funds are available in the account that will ultimately bear the charge.

(3) Royalty payments on future acquisition savings.

(a) <u>Description of method</u>. In addition to sharing the savings under the instant contract, but always in lieu of any sharing by lump sum payments, an agreement may be made based on the instant contract to pay the contractor a "royalty," based on actual future procurements of the same item which incorporate the instant VE change, and which are made by the same purchasing office or its successor within a stated time period. Agreement in the instant contract to make royalty payments based on actual future procurement does not constitute a commitment or obligation of funds. Also, the agreement to pay royalties does not extend to procurements of the item by any other DOD component, even though the VE change is incorporated in such procurements. The contractor's share per unit is determined generally in the same manner as for lump sum payments. The contractor will be paid royalty payments within 3 months of the actual award of future contracts based on the

actual quantities purchased. Although the royalty payments will be made pursuant to the contract under which the proposal was accepted, they will be made from the appropriation supporting the succeeding contract.

(b) <u>Financing</u>. The contractor's share of savings under the royalty method will be financed by the appropriation account cited in the subsequent procurement contract, irrespective of whether that contract is with the instant contractor. When subsequent procurement is made by the procurement activity that approves the VECP for another DOD component under a Military Interdepartmental Purchase Request (MIPR), funds cited for the procurement must include amounts required to pay royalty payments to the VECP submitter.

(4) Payments for collateral savings.

- (a) <u>Description of method</u>. As a result of acceptance of a VE change under the instant contract, the contractor may be compensated for a share in collateral savings expected to be realized from the change, such as reduced Government-furnished property requirements, reduced cost of operating the contract item, or reduced logistics support cost. Compensation will always be a one-time lump sum payment under the instant contract. Sharing of collateral savings will not extend to any subsequent purchases of the same items.
- (b) <u>Financing</u>. The lump sum payment for collateral savings may be charged initially to the appropriation cited in the instant contract and transferred, as determined by the Army procuring activity, to the applicable account in accordance with the funding principles in 2a(1)(b) above. The acceptance of a VECP is subject to prior determination that funds are available in the account that will ultimately bear the charge.
- (5) No Cost Settlements. No cost settlements are appropriate when the savings are small and the contractor is willing to forgo future and collateral sharing in return for 100 percent of the instant savings. The contractor is compensated in the same manner as 2a(1)(a) above with no net change in contract value.
- b. VE program requirements clause. This clause requires a stated level of VE effort by the contractor and is provided as a separate line item. Funding will be in accordance with the funding principles set forth in 1b(3) above.
- c. Testing. A determination that a VEP or a VECP is acceptable and does not adversely affect the function of an item often can be made only

after appropriate tests. Tests, and in some cases, Government tests, may be prerequisite to acceptance of contractor proposals. Costs for fabrication of hardware and testing will be included in the budget estimates and operating programs of the operation and maintenance appropriation or other applicable appropriation.

- d. AMC procedures. The commander of each AMC major subordinate command, each PM, and the commander of each separate installation and activity reporting directly to Headquarters, AMC, will issue procedures to implement the requirements of this regulation, to assure that--
- The designated VEPM will be provided authority and will devote adequate effort to timely planning for VE funding requirements to assure that these requirements are included in all budget estimates and operating budgets. Also, the designated VEPM will assure that the appropriation financing a prime program will require that VE be accomplished as a part thereof; IAW DODI 7110.2, this appropriation will bear the costs of such VE actions. For example, VE pertaining to a specific item of equipment or materiel that is undergoing development, including Operation Systems Development, should be charged to the RDTE appropriation. Briefly stated, those RDTE funds provided to design, develop, engineer, and build the developmental prototype, and test and evaluate it, should also be used to finance the cost of performing VE related to such activity. Should it become necessary, following adoption or type classification of the item, to undertake any VE action resulting from or as a part of a production engineering action, the costs of accomplishing such action (e.g., project or task) are properly chargeable to procurement funds if the item is scheduled to be procured by procurement funds, or to OMA if the item is to be procured by the stock fund. The cost of performing a VE action necessitated by a reconfiguration action that is directed to a type-classified/adopted item, should be financed with the same funds (i.e., RDTE; PA; OMA 728012.12; or OMA 738017.00X prescribed by AR 70-15) used to finance the first phase of the reconfiguration effort pertaining to the item undergoing product improvement. VE expenses requiring funding consideration will include but not be limited to--
- (a) Salaries to include the program manager and staff, and for specialists and administrative support who would be used on those VE task team studies that would require an extended period of time to complete.
- (b) Fabrication of VE models, prototypes, or modifications of existing items or systems for test and evaluation purposes.

- (c) Requirements for facilities, equipment, and staffing to perform testing, analysis, and evaluation required for proposal disposition and/or implementation.
- (d) Training to include in-house, on-site programs, as well as training at private educational institutions and other Government facilities. Training provided for technical, procurement, and other operational personnel as well as members of actual VE organizations.
- (e) Travel relating to VE in-house studies at other Government or contractor facilities to include training and contractor motivational activities.
- (f) Miscellaneous materials and supplies used in administration of the VE program and training, and public relation aids such as movies, pamphlets, posters, and awards.
 - (g) Collateral savings payments.
- (2) Procedures will be established and implemented to record all costs incurred to perform the VE task. These records will present cost information in a form that will be easily analyzed in relation to budget estimates and recorded VE savings/cost avoidance.
- e. Funding VE at Army Industrial Fund (AIF) Installations, Depots, Arsenals. The following funding policy is provided for those installations depots, arsenals funded by the AIF.
- (1) Each AIF installation, depot, arsenal is authorized to establish a deferred cost revolving job order with an annual funding limitation of 1 to 3 man-years, basic supplies, travel, and other minimum operating expenses. This order will be interim financed within the existing AIF capitalization and will be used to finance the following types of VE studies:
- (a) Work where the VE study relates to a specific item for which the installation is not, or will not be funded within 12 months, to perform work.
- (b) Work where the VE study relates to a group of items for which the installation is not, or will not be funded within 12 months, to perform work.
- (c) Work where the VE study relates to an item or items for which the installation will not be funded at all.

- (2) Costs actually incurred for each of the VE studies in 2e(1)(a) or 2e(1)(b) or 2e(1)(c) above, will be separately identified by use of a sub-job order under the deferred cost revolving job order. Upon completion of a VE study, an evaluation will be made of the results and, where appropriate, the following actions taken to effect a cost credit to the deferred cost revolving job order.
- (a) If the VE study is of the type referred to in 2e(1)(a) above and results in an action which will have specific and quantifiable cost benefits (equal to or in excess of the costs of the VE study) to the program for the item, then the costs of that VE study will be credited to the deferred cost revolving job order and charged (as other direct costs) against the benefiting program. This credit and charge will be processed on the installations locally-devised cost transfer form and should be concurred in by the director who has responsibility for the program being charged.
- (b) If the VE study is of the type referred to in 2e(1)(b) above and results in an action which will have specific and quantifiable cost benefits (equal to or in excess of the costs of the VE study) to a group of programmed items, then the costs of that VE study will be credited to the deferred cost job order and the charges equitably prorated (as other direct costs) to the benefiting programmed items. This credit and charge will be processed on the installations locally-devised cost transfer form and should be concurred in by the installation's directors having responsibility for the programs being charged.
- (c) If the VE study is of the type referred to in 2e(1)(c) above and results in an action which will have specific and quantifiable cost benefits (equal to or in excess of the costs of the VE study) for programs and/or items for which the installation will not be funded to perform work, then the following actions will be taken:
- Upon completion of the study, the results and cost benefit analysis will be documented and submitted to the command/ activity responsible for the program/item(s) which will be benefited. This documentation will contain a request for funding the cost of the study and detail what those costs are.
- If the funding is received, the costs of the study will be transferred to that funded order using the same cost transfer procedures outlined in 2e(2)(a) and 2e(2)(b) above.

- If the funding is not provided by the benefiting activity, then the procedure in paragraph 2e(2)(b) will be followed.
- $\,$ (d) For VE studies where the specific and quantifiable cost benefits are less than the costs of the study, the following procedures will apply:
- An amount of costs on the VE study equal to the quantifiable cost benefits will be accounted for following the cost transfer procedures outlined in 2e(2)(a), (b), and (c) above.
- The amount of costs on the VE study in excess of quantifiable cost benefits will be financed in accordance with procedures in paragraph 2e(2)(b).

Appendix C

Value Engineering Change Proposal (VECP) Guidance

- 1. Value Engineering within the Army Materiel Command is not merely another program to which the Command is subjected but is an institution and a significant part of the way the Command does business. As such, the guidance contained in this appendix serves to provide the basis for uniform AMC-wide guidance regarding VECP issues which may arise during administration of the VE Program and during evaluation of individual VECP actions. The guidance contained herein on VECP issues is not intended to replace individual good judgment. Each VECP must be processed and decisions made based upon the individual merits and circumstances of the VECP.
- 2. The issues addressed, and AMC guidance established for each, are set forth below:
 - a. What constitutes a VECP?

GUIDANCE: Any proposal (whether or not engineering effort is required) developed by a contractor that saves the Government money and requires Government approval by a change to the instant contract is a valid VECP unless a specific exception in the FAR applies or the contractor is required to develop the proposal under a provision of the contract. However, the VECP may be rejected if acceptance is not in the best interest of the Government.

b. Can a contractor submit a VECP to allow performance or to make previous performance acceptable?

GUIDANCE: VECPs will not be accepted solely to allow a contractor to render acceptable performance. A VECP will not be accepted for performance completed prior to submission of the VECP unless expressly agreed prior to performance that the resultant cost reduction is subject to VE sharing in accordance with the VE provisions of the contract upon Government acceptance of a formal VECP submitted on the same contract.

IMPLEMENTATION: When a contract deviation is submitted pending a formal VECP submittal, the deviation should contain a statement that a VECP is being prepared for submittal and any resultant savings may be considered for VE sharing. Upon approval of the deviation, the contracting officer will make an appropriate "downward price adjustment" to recover 100 percent of the cost reduction plus appropriate profit or fee. Upon approval of the associated formal VECP, the contracting officer will--

(1) Return 100 percent of the profit and/or fee included in the "downward price adjustment."

- (2) Pay the contractor's share of the instant contract net savings (in accordance with the VE provisions of the contract).
- $\mbox{(3)}$ Arrange for other (concurrent, future, and collateral) VE payments, as appropriate.
- c. Can a contractor submit a VECP to change a contract requirement that would be difficult or expensive to comply with?

GUIDANCE: If the proposal meets the requirements of the FAR clause and the change is deemed desirable, the contractor's motive for submitting it should not be an issue.

d. If a contractor submits a VECP that Government representatives feel does not qualify as a VECP, should the VECP be changed to another type proposal?

GUIDANCE: If a submitted VECP does not qualify as a VECP in accordance with provisions of the FAR, it is to be disapproved and returned to the contractor with an explanation of why it does not qualify. If the proposal warrants consideration other than as a VECP, the Government may suggest the proposal be resubmitted and provide guidance pertaining to submission.

e. Should a contracting officer tell a contractor that a contractor submitted ECP should be "changed" to a VECP?

GUIDANCE: When a contractor proposes an Engineering Change Proposal (ECP), the Government may process the ECP or it may question whether the contractor considered submission as a VECP. However, the Government will not dictate whether the contractor must submit the proposal as an ECP or VECP.

COMMENT: A contracting officer is under no legal obligation to inform a contractor that an ECP qualifies as a VECP. There is also no legal prohibition on informing a contractor where the proposed change would be of material benefit to the Government.

f. Should the Government unilaterally change a proposal to a VECP?

GUIDANCE: No. The above policy (2e) applies.

g. If a contractor has submitted a proposal not identified as a VECP, at what point in time can the contractor no longer change it to a VECP?

GUIDANCE: A contractor may identify a proposal as a VECP at any time prior to a change to the contract incorporating the proposal.

h. What role does (or should) \mbox{VE} play in Non-developmental Item (NDI) procurement?

GUIDANCE: The Chief of the contracting office should authorize the use of VE clauses in contracts over \$100,000 for commercial or Non-developmental items where Government requirements are considered to offer significant opportunities for VE. The VE Program Requirement Clause may be used if there is an area within the contract with a fully definitized baseline that the contracting officer feels has a high potential for cost reduction through VE.

i. In view of the increasing emphasis on competition and breakout, can a contractor submit a VECP for an alternate source, component3 or material?

GUIDANCE: Where a contractor is required to utilize only qualified sources, components or materials, qualification of additional sources, components or materials may be appropriate for a VECP in the following circumstances: (a) qualification is not required by any clause or provision of the contract; (b) the technical data package and therefore the contract will have to be modified to incorporate the additional source; and (c) a cost savings to the Government will result from the qualification and subsequent procurement and use of the source, component, or material.

IMPLEMENTATION: (1) Implementation of this policy may require reconciliation of the scope of the VE clause with the following contract clauses under which the contractor may be obligated to establish second sources:

- (a) Breakout and Competitive Procurement Clauses. Authorized at some MSCs, these clauses allow the Government to unilaterally direct qualification of second sources for components. These clauses generally require no specific and measurable action on the part of the contractor unless the Government exercises its right to require establishment of additional sources and provides funding.
- (b) Competition in Subcontracting, FAR 52.244-5. This clause requires the contractor to select subcontractors on a competitive basis to the maximum practicable extent consistent with the objectives and requirements of the contract. It is included in most contracts over \$25,000 except when awarded on the basis of price competition or where prices are set by law or regulation. The clause does not require expenditure of contractor funds to qualify second sources.

- (2) The extent, if any, to which the contractor will expend funds to qualify additional sources in following the mandate of the Competition in Subcontracting Clause should be considered and included in price negotiations and in the contract.
- (3) The Government should direct and fund under any Breakout and Competitive Procurement Clause specific actions on items with Government controlled sources, components, and/or materials to the extent funds are available.
- (4) To the extent not required under the Breakout and Competitive Procurement Clauses, Competition in Subcontracting, FAR 52.244-5, or any other contract clause, qualification of additional sources to obtain competition may be eligible for sharing under the VE Incentive clause.
- (5) Upon receipt of a VECP for an alternate source, component, or material, the contracting officer will determine if the development of the VECP was considered and required as stated in subparagraph (2) and/or (3) above, in developing the contract price. Processing of the VECP will be in accordance with the contracting officer's determination.
- j. What constitutes a "change to the instant contract" for Basic Ordering Agreements (BOAs), Time and Material (T&M) contracts, etc.?

GUIDANCE: Any change to a Government requirement, whether the requirement arises in the basic ordering agreement or time and materials agreement or in an individual task or delivery order, may qualify for Value Engineering. The basic contract document and any awarded task or delivery order at the time a change is made constitute the "instant contract" for purposes of computing VE savings.

Glossary

SECTION I Abbreviations

ADP Automated Data Processing AIF Army Industrial Fund

AMC United States Army Materiel Command

APP Army Procurement Procedures

AR Army Regulation

ASARC Army Systems Acquisition Review Council

BOA Basic Ordering Agreements

BPRR Budget and Program Resources Review
CAVE Contractual Aspects of Value Engineering

COMDEV Combat Developer

DAPP Department of the Army Productivity Improvement Program

DAR Defense Acquisition Regulation

DCS Deputy Chief of Staff

DFARS Department of Defense Federal Acquisition Regulation

Supplement

DOD Department of Defense

DODD Department of Defense Directive
DODI Department of Defense Instruction

DSARC Defense Systems Acquisition Review Council

DTC Design to Cost

ECP Engineering Change Proposal FAR Federal Acquisition Regulation

FAST Functional Analysis Systems Technique

HQ Headquarters

IAW In Accordance With

IBEA U.S. Army Industrial Base Engineering Activity

IPR In-Process Review

LSSA United States Army Logistic Systems Support Activity

MCA Military Construction, Army

MIPR Military Interdepartmental Purchase Request

MSC Major Subordinate Command NDI Non-Developmental Item O&S Operation and Support

OMA Operation and Maintenance, Army

PA Procurement Appropriation

PAVE Principles and Application of Value Engineering

PBG Program Budget Guidance

PM Program Manager

POA Procurement Obligation Authority

RCS Requirement Control Symbol R&D Research and Development

RDTE Research, Development, Test, and Evaluation

SRA Separate Reporting Activity

T&M Time and Material

TECOM United States Army Test and Evaluation Command

AMC-R 70-8

VA Value Analysis
VE Value Engineering

VEARS Value Engineering Automated Reporting System

VECP Value Engineering Change Proposal

VEDISARS Value Engineering Data Information Storage and

Retrieval System

VEP Value Engineering Program

VEPM Value Engineering Program Manager

VEPRC Value Engineering Program Requirement Clause

SECTION II Terms

DEFINITION: For the purpose of this regulation, the terms in AR 310-25 and the glossary of this regulation apply.

Functional Analysis Systems Technique (FAST) - A method of arranging the functions of an item, operation, or system into a critical logic path. The FAST method is basically a technique for diagramming all basic and secondary functions in the design being studied.

Instant contract - The contract under which a value engineering change proposal is submitted and accepted by the Government.

Military worth - The fundamental capability of military equipment resulting from the functional and physical design characteristics such as performance, reliability, maintainability, safety, quality, weight, producibility, capacity, and availability, required to perform necessary functions to satisfactorily accomplish a military operation.

Operational value engineering - The timely and beneficial application of VE and/or the VE contract incentive provisions.

Study - an effort, review, analysis, project, task, or evaluation whose purpose is to ascertain whether the optimum relationship between a function and its cost has been effected. Once it has been determined that the cost is higher than considered necessary, the study will be expanded to include appropriate recommendations for obtaining the required optimum relationship.

Value analysis - the broad term used to identify all actions which discern and eliminate unnecessary cost in the requirement, design, development, and procurement of Army materiel without sacrificing essential quality, reliability, maintainability, performance, or mission accomplishment. It is a functionally oriented, planned effort by trained personnel using specific techniques. It encompasses activities variously referred to as "value improvement" and value engineering.

Value Engineering Change Proposal (VECP) - Any specific proposal, developed and submitted by a contractor under his/her VE contract provision, that will, if approved, require a contract change to implement, result in a net contract price reduction or a Life Cycle Cost Reduction.

Value engineering contract incentives - Special provisions in Part 48 of the FAR, as follows:

- a. <u>Value engineering incentive clause</u>. This clause is used in procurement and construction contracts to motivate contractors to submit proposals for beneficial changes in drawings, design, specifications, or other contractual requirements, for the purpose of stimulating cost reduction and to provide for compensation to contractors on acceptance of such proposals.
- b. <u>Value engineering program requirements clause</u>. Clause used primarily in design and development contracts, and to some extent in production contracts. This clause requires the contractor to perform specific value engineering work in designated areas of contract performance at a stated level of effort. A value engineering incentive clause may be included in the same contract provided the contract specifies what areas are included under the VE program requirements and what areas are included under the VE incentive clause.

Value engineering project - A project with the objective to reduce costs and meet necessary performance, in which appropriate VE techniques are utilized. Projects may be accomplished by individuals, teams, or task forces. Formal VE projects are those identified as such to or by Management.

Value Engineering Proposal (VEP) - A specific proposal developed by Government personnel of a change requiring a formal approval or disapproval that would result in a net Life Cycle Cost Reduction. The term is applicable to any change proposal developed as a result of the application of VE techniques, which may or may not require a contract change for implementation. The term also can be applied to contractor-originated proposals that do not require a contract change to be implemented.

Value engineering task force - Two or more VE task teams organized under single management.

Value engineering task team - Composed of VE trained members with a variety of selected backgrounds and skills, organized to apply the analytical VE techniques to a particular system, equipment, item, or procedure assessed to have high cost improvement potential.

Value engineering techniques - The specific techniques described in DOD Handbook, 4245.8H, Value Engineering, employed in applying VE to individual projects.

Value improvement - The result of effective VE application to existing management systems, resources, and materiel during all phases of a program's life cycle, to increase the capability and efficiency of operations, deplete backlogs, and/or decrease funding, time, manpower, and facility requirements.